

**Centurus nyeanus** RIDGW. Watlings I., Bahamas.

RIDGW. Auk, III, p. 336, 1886.

**Centurus blakei** RIDGW. Abaco, Bahamas.

RIDGW. Auk, III, p. 337, 1886.

**Colaptes gundlachi** CORY. Grand Cayman.

CORY, Auk, III, p. 498, 1887.

**Coccyzus maynardi** RIDGW. Bahama Islands.

RIDGW. Man. N. A. Bds. p. 274, 1887.

**Chrysotis caymanensis** CORY. Grand Cayman.

CORY, Auk, III, p. 502, 1886.

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## ON THE AVI-FAUNA OF PINAL COUNTY, WITH REMARKS ON SOME BIRDS OF PIMA AND GILA COUNTIES, ARIZONA.

BY W. E. D. SCOTT.

*With annotations by J. A. Allen.*

*(Concluded from p. 36.)*

217. **Anthus pensilvanicus**. AMERICAN PIPIT. — A not uncommon migrant throughout the region and some probably winter on the plains about Tucson and south of that point. I have records of their occurrence in the Santa Catalina Range, altitude 5000 feet, in October and early November, and in March. It was common in flocks on the San Pedro River in March, 1885, at the mouth of Pepper Sauce Cañon.

[Of the four specimens sent, three are in adult spring plumage. One has the dusky streaks on the breast unusually broad and dark. — J. A. A.]

218. **Oroscoptes montanus**. SAGE THRASHER. — A common fall migrant in the Pinal Mountains; common migrant and winter resident in small numbers on the foothills of the Catalinas up to 3500 feet. My records of its occurrence are December, rare; January, rather common; February, common; March, abundant. In April they begin to leave, and I did not observe any during the other months of the year.

219. **Mimus polyglottos**. MOCKINGBIRD. — A common resident throughout the region up to an altitude of 5000 feet, but more abundant during the

spring migration and in the summer season. In the Catalina Range they are abundant at all times, save in midwinter, up to the altitude indicated, and breed in numbers, raising three broods of three to five young each, during the spring and early summer months. The first brood is hatched by late April or early May, and the final brood late in July or the first week in August.

In this connection some experience that I had with young of this species may be of interest. About May 20, 1885, I captured a young Mockingbird which could fly short distances pretty well. It was probably four weeks old. It soon became accustomed to the cage, which was a large one, and ate readily from the hand or from the feed cups. By the time it had become fully tamed, about ten days or two weeks after it was captured, two other young birds were obtained from a nest. They were pretty well feathered, but the tails and wings were not at all grown, and the little fellows knew nothing about feeding themselves. By this time the bird first captured was fully feathered and grown, being very like an old bird in everything save some details of plumage. The younger birds were put in the same cage with the one first captured. I fed the birds largely on grasshoppers, which were very abundant. From the time that the younger birds entered the cage, they opened their mouths very wide, and made a twittering sound whenever the older birds seized on one of the insects to kill and eat it. After the first twenty-four hours, the elder bird seemed to realize that certain duties devolved upon it, and began to feed and care for the younger birds with the solicitude of a parent. This was continued for a couple of weeks, when the small birds had learned to feed themselves. May not this be considered as either an instance of considerable mental capacity, or a strongly inherited parental instinct?

[Mr. Scott's series of seven adult birds are very much lighter above than specimens from the Atlantic States, with generally more white on the tail feathers, and always much more white on the wings, the white area on the inner primaries being one-fourth to one-third greater than in Florida and South Carolina birds. The white wing-bars are broader, the secondaries are much more broadly tipped with white, and the white is much purer; the primaries are *all*, in some specimens, narrowly tipped with pure white—a feature absent in the eastern bird—and the outer edge of all the remiges and greater coverts is more broadly bordered with a much lighter shade of gray. The throat is white, and the lower parts generally are of a much lighter shade. The white of the tail is a clearer, more snowy white—not silvery or grayish white, as is usually the case in eastern birds; the fourth feather often has a blotch of white at the end. The gray of the upper parts is very much lighter in the Arizona birds, this difference being a striking feature. In size and proportions there seems to be no tangible difference, the tail being not disproportionately longer in the western bird. This form is therefore not identical with the bird from Lower California Professor Baird at one time proposed to call *Mimus caudatus*, although this name has been used to designate the Mockingbird as found in Arizona (*Coues*) and Colorado (*Ridgway*).

Mr. Sennett's specimens from Texas agree very closely in general features with the Scott birds from Arizona.—J. A. A.]

220. *Harporhynchus bendirei*. BENDIRE'S THRASHER.—On the plains about Tucson and to the southward, this species is resident, but even here there seems to be a very considerable migration, as the birds are much more common in the spring and during the breeding season than during the late fall and winter months.

I also observed the birds to be quite common in the vicinity of Florence during the warmer months.

In the foothills of the Catalinas the birds were not resident but were present for about eight months of the year, and were quite common during the breeding season, though they did not range above 4000 feet. Here they arrive early in March, the 7th of that month being the earliest record made, and begin mating and nesting almost at once. The earliest nests with eggs that I recorded was on March 28, and the eggs were partly incubated. On the 20th of May there were many young birds fully grown, and some of the parent birds were nesting a second time. The young birds, as soon as they are fully grown, begin to congregate in companies, often being associated with one or two *H. curvirostris palmeri* and *H. crissalis*. I have seen forty or fifty young Thrashers, mostly *bendirei*, together in such a flock in late May and early June. At such times the birds seek a somewhat higher altitude, as high as five thousand feet, and affect thickets of low oaks and juniper.

The old birds are at all times shy and wary and difficult to approach, even when nesting. The song of the male is particularly beautiful, and is to be compared with the best efforts of the Mockingbird.

The period of song seems to begin very early in the season with all three species of Thrashers that I have observed here. *H. crissalis* is frequently to be heard in late December in the Catalinas, and in January they are in full song, while *palmeri* is in song late in January, and *bendirei* is in full song on its arrival.

221. *Harporhynchus curvirostris palmeri*. PALMER'S THRASHER.—Wherever the cholla, a kind of very prickly and repellant cactus, is found in this region, there one is almost sure to find these Thrashers. They are common residents but do not, so far as I am aware, range much above 3000 feet in altitude on the sides of the mountain ranges. I found them in the Catalinas, at about this altitude, the year round, though they were not quite as abundant in winter as at other times. Here they begin to nest early in March, and by the middle of the month are breeding generally. Three eggs is the usual number in a clutch, though I have found four on rare occasions, and two not infrequently form the set. Rarely only one egg is laid. Two broods are generally raised here. These birds do not sing nearly as much after nesting has begun as they do for the six weeks preceding the laying of the first set of eggs. Near Tucson the breeding season begins fully a month earlier than on the San Pedro slope of the Santa Catalinas.

222. *Harporhynchus crissalis*. CRISSAL THRASHER.—This species is

apparently a resident, though not so abundant as either of the last, throughout the region. In the Catalinas I found it ranging up as high as five thousand feet, and in the Pinals, though not so common as in the Catalinas, it had about the same distribution. It is not nearly so pronounced a cactus species as either of the others, but seems to be equally if not more at home on the rough hill-sides where there is a low dense growth of a kind of juniper and some mesquite.

They breed about the same time as Bendire's Thrasher, or perhaps a little earlier, as I found eggs in the Catalinas during the first week in April that were about ready to be hatched, and have taken young fully fledged as early as May 1. In the fall I have noticed the species feeding on juniper berries and other small fruits.

223. *Campylorhynchus brunneicapillus*. CACTUS WREN.—Throughout the region this is a common resident species, breeding in numbers and raising at least two and sometimes three broods. They are seldom found above 4000 feet on the foothills of the several mountain chains traversing the Territory. While seeming to prefer the cholla cactus country, especially during the breeding time, yet I have found their nests commonly in cat-claw and thick mesquite bushes. The first eggs are laid in the Catalina region as early as March 20, and the broods vary from three to five in number.

224. *Salpinctes obsoletus*. ROCK WREN.—The Rock Wren is a more or less abundant species in the several counties here considered, but is not nearly so common during the winter as at other times of the year. In the mountains it ranges occasionally up to at least 8500 feet, though it is perhaps most abundant between 3000 and 5000 feet. They begin to breed in the Catalinas about the middle of March, and are in song by the last of January. Six or eight young are the common inmates of a nest. Two broods are raised. The nest is on the ground in some hole, or more frequently under a rock.

225. *Catherpes mexicanus conspersus*. CAÑON WREN.—The rocky cañons of the mountains in the region under consideration are the home of this species, which, so far as I am aware, is resident up to at least 5000 feet the year round. In the summer this range is extended to the higher altitudes. (See Auk, Vol. II, No. 4, p. 350, October, 1885.) The species is not a very common one, it being rather unusual to see more than a pair in the same neighborhood, but wherever they occur, and at every season of the year, particularly in the early spring, the birds are very conspicuous by their song, spoken of in the above reference.

Their nesting methods are very different from those of the species just considered. In the Catalinas I took in all half a dozen nests that were built much like the nest of the Phæbe (*Sayornis phæbe*), the same thick, heavy walls, rather soft and covered with green moss on the outside characterizing the structure, and the inside cavity not so broad or shallow as in the case of the Phæbe. The nest is generally placed in some deserted tunnel or cave, and at times in unused buildings. It is found more frequently on some projecting ledge or shelf, and rarely in some cranny or hole that

will scarcely permit the old birds to enter. The eggs are from four to six in number, and three broods are generally reared each season.

226. *Thryothorus bewickii murinus*. BAIRD'S WREN.—This species was obtained in the Catalinas and also in the Pinal Mountains, at both of which localities it appears to be resident, ranging up to about six thousand feet, and apparently preferring the evergreen oak region.

The only nests that I have found have been built in natural hollows or deserted Woodpeckers holes in live oak trees.

I noticed the species on the San Pedro River in winter, and Mr. Brown has found it not uncommon about Tucson during the colder portion of the year.

[Fifteen specimens from Arizona represent the extreme grayish form of this subspecies, differing as much in the general color of the upper parts from a similar series from Southern Texas in Mr. Sennett's collection as do the Arizona Mockingbirds from the Mockingbirds of the Atlantic States.—J. A. A.]

227. *Troglodytes aëdon parkmanii*? PARKMAN'S WREN.—It is apparent that two forms of House Wren occur in this region. That which I take to be the true *parkmanii* is migratory and not nearly as common as the form that I described in this journal (Vol. II, p. 351), under the name of *T. aëdon marianæ*. The only example of the form known as the *parkmanii* is catalogued as No. 1075, ♂, 8th October, 1885, and was taken near my house in the Catalinas, and several specimens of House Wren taken by Mr. Herbert Brown near Tucson in the fall and winter months.

228. *Troglodytes aëdon marianæ*? MARIAN'S WREN.—The other House Wrens that were obtained I must again refer to a form undescribed until published in this journal, as above.

They were all obtained in the Catalinas, and with a few exceptions in the pine forest region, where they were breeding and quite abundant in April, 1885. The birds are migrants and summer residents in the pine forests of the Santa Catalinas above 10,000 feet.

[In Mr. Scott's series of thirteen specimens are two only in fall plumage, namely, No. 773, ♂, Catalina Mill, Sept. 1, 1884, and No. 1075, ♂, same locality, Oct. 8, 1884. These look quite different from the others, which were taken in April (Apr. 19-24, 1885), in the "pine region" of the Santa Catalina Mountains, at the beginning of the breeding season. In the light of much material additional to that examined when I penned my note endorsing Mr. Scott's *T. aëdon marianæ* (Auk, Vol. II, p. 351, footnote), I am now compelled to consider the differences noticed by Mr. Scott as mainly seasonal, and the entire series of specimens as referable to the form which has for many years been called *parkmanii*. The *marianæ* series, however, is pretty uniformly and appreciably lighter in color than the average of specimens from the middle region of the continent, representing apparently the extreme degree of pallor of the pale interior race.

Finding it desirable to again review the subject in the present connection, I have been at the trouble to bring together a large amount of material (about 120 specimens), Mr. Ridgway having kindly sent me for

examination the '*parkmanii*' series (over 50 specimens) in the National Museum. Unfortunately, however, the moist Northwest Coast region is poorly represented in the series. But the material at hand seems to indicate that three forms may be fairly well distinguished, as follows:

1. *T. aëdon*. The eastern form (*aëdon* proper) is apparently restricted mainly to the Atlantic coast region, from Northern New England to Florida. It is characterized by the dark heavy tone of its colors, the brown of the dorsal region being dull umber brown, strongest or most ferrugineous on the lower back and rump; back usually with faint darker bars, sometimes strongly developed, occasionally obsolete.

2. *T. aëdon parkmanii*. The true *parkmanii* is a Northwest Coast form, typically represented in the coast region of Oregon and Washington Territory, and less typically southward along the coast to Lower California. Differs from true *aëdon* principally in the lighter or more tawny brown of the upper parts. Light Atlantic coast birds are not certainly distinguishable from dark Pacific coast birds, though separated by not only the whole breadth of the continent, but by a paler, easily recognized form occupying the intermediate region.

Audubon's "single specimen" of his "*Troglodytes Parkmanii*" was sent to him "by Dr. Townsend, who procured it on the Columbia River" (Orn. Biog. V, 1839, p. 310). This specimen, still extant in the National Museum, is now before me. It is No. 66,644, and bears what appears to be the original label, probably in Dr. Townsend's hand-writing. It reads (literally transcribed) as follows: "*Troglodytes Americana* (Aud.)-Wood Wren-(Audubon Biogr. Vol. II, pag. 452. Plate CLXXIX. Male, Columbia River, June, 1835." On the accompanying National Museum label is written "Type of *Troglodytes parkmanii*, Aud. 'Columbia River,' J. K. Townsend." It is practically identical in coloration with Fort Steilacoom specimens (Nos. 7135-7137), and others from Northern California.

3. *T. aëdon aztecus*. Lighter (more ashy) and paler throughout than even true *parkmanii*, the brown of the upper parts especially being lighter, and the anterior half of the dorsal surface decidedly ashy instead of brown, contrasting strongly with the rest of the dorsal surface. Dark and light barring of the back rather stronger and more constant than in either of the other two forms. Rather smaller, with smaller bill. Reaches its extreme phase of pale colors and small size in Arizona and the Rio Grande border of Texas. Its habitat may include, however, the whole arid interior. The specimens from the Mississippi and Ohio Valleys are also referable to it rather than to *aëdon* proper.

The small, pale Arizona and Rio Grande birds seem to correspond exactly with Baird's var. *aztecus* (Rev. Am. Bds., 1864, p. 139), from Eastern Mexico, which has been of late commonly referred to '*parkmanii*.'

At all localities there is a wide range of individual variation, particularly in general size, and in the size of the bill; also more or less in coloration, especially in the barring of the plumage, both above and below. Young and autumnal birds are also browner and darker than birds taken in the breeding season. This somewhat masks the variation characteristic of

particular localities. Florida specimens of the eastern form are, however, in the average, smaller and darker than specimens from Pennsylvania and New York. Southern specimens of the Pacific coast form are smaller and *lighter*, with smaller bill, than specimens from the coast region of Oregon and Washington Territory. Yet one of the Fort Steilacoom specimens (a 'bird of the year') has as small a bill as any in the series. The Arizona birds are especially characterized, as a series of 15 specimens, by small size, a very small bill, and excessively pale colors, with the anterior half of the dorsal surface decidedly ashy. They can be very closely matched, however, by specimens from Nueces and Presidio Counties, Texas, and by occasional specimens from Colorado and Nebraska. Mr. Sennett's specimens from the Rio Grande Valley, Texas, though averaging larger than Arizona specimens, more closely resemble them than do any similar series from elsewhere. Mississippi Valley specimens show less ashy on the anterior dorsal surface than is seen in the Lower Texas and Arizona birds.

The distinctness of the barring, both above and below, varies in all the forms, being sometimes strongly developed and sometimes obsolete in specimens from the same locality. As already said, it is rather more pronounced and constant in the *aztecus* form than in the others. Though the barring is perhaps least marked in the Atlantic coast form, the most strongly barred specimen in the whole series is from Long Island, N. Y. —J. A. A.]

229. *Cistothorus palustris*. LONG-BILLED MARSH WREN. — Obtained by Mr. Herbert Brown near Tucson, where I have also noted it on one occasion in the early springtime.

[Doubtless var. *paludicola*.—J. A. A.]

230. *Certhia familiaris mexicana*. MEXICAN CREEPER. — The only notes made on this species are based on a specimen taken in the pine forests of the Catalinas, April 23, 1885. For further details see Auk, Vol. II, No. 4, p. 350, October, 1885.

231. *Sitta carolinensis aculeata*. SLENDER-BILLED NUTHATCH. — This Nuthatch is a common resident in the pine woods and higher altitudes, and a migrant throughout the district. Mr. Brown regards it as rare immediately about Tucson.

It was a rather common migrant in fall, and winter resident in small numbers in the region about my house in the Catalinas. In spring I rarely saw it here. For reference to its occurrence in the pine woods of this main range see Auk, Vol. II, pp. 172 and 349.

232. *Sitta canadensis*. RED-BREASTED NUTHATCH. — The only record made of the occurrence of this species is a female (No. 2819) taken near my house, Santa Catalina Mountains, altitude 4500 feet, 29th October, 1885. This, so far as I am aware, is the second record of the capture of the species in Arizona Territory, where it is apparently rare.

233. *Sitta pygmæa*. PYGMY NUTHATCH. — This species was only noticed in the pine forests of the Pinal and Santa Catalina Mountains, at each of which points it is resident. For further account of the species in the Catalinas see this journal, Vol. II, pp. 172 and 350.

234. *Parus wollweberi*. BRIDLED TITMOUSE.—This Titmouse I found to be a rather common resident in the evergreen oak region of both the Pinal and Santa Catalina Mountains. For an account of its breeding habits see my paper 'On the Breeding Habits of Some Arizona Birds' (Auk, Vol. III, No. 1, Jan., 1886, pp. 84-86; see also Vol. II, No. 4, p. 349, Oct. 1885).

235. *Psaltiriparus plumbeus*. LEAD-COLORED BUSH-TIT.—This species is resident in the Catalinas up to at least 7500 feet, but is most abundant in the fall months, congregating often in flocks of from twenty-five to a hundred individuals.

I found a nest that had just been completed near my house late in May, 1885, but the old birds, becoming alarmed, deserted their home and no eggs were laid. The only other point where I have met with this bird is in the Pinal Mountains, near Mineral Creek, where it was also resident.

236. *Auriparus flaviceps*. VERDIN.—Noted throughout the entire region up to an altitude of 4000 feet; resident and breeding wherever it occurred. In the Catalina range, altitude 3500 feet, I found a nest with fresh eggs May 20, 1885, and at Riverside, at a considerable lower elevation, I found the birds breeding late in April.

The particular cover most affected by the birds is dense growths of mesquite and cat-claw, and the nests are placed so as to be best protected by the thorns of such trees and bushes.

237. *Regulus calendula*. RUBY-CROWNED KINGLET. — In the Santa Catalinas, in the evergreen oak belt, this species is a common migrant and winter resident, arriving in fall about the last week in September and being thus very common. Some winters, and in the spring, the numbers are again largely augmented, being most abundant about March 1 to 10, and remaining till the first week in April. I have also observed the species about Tucson and in the valley of the San Pedro River in winter and early spring.

238. *Polioptila cærulea*. BLUE-GRAY GNATCATCHER.—The Blue-gray Gnatcatcher is present in some parts of the region during the entire year, but is not found in winter much above the altitude of the great plains and mesas — about 2000 to 2300 feet. It breeds commonly in the Santa Catalinas, and even at high altitudes. (See Auk, Vol. II, No. 4, p. 349, October, 1885.)

239. *Polioptila plumbea*. PLUMBEOUS GNATCATCHER. — This Gnatcatcher is a common resident species about Tucson and in the valley of the San Pedro River. It ranges during the entire year up to an altitude of about 4000 feet, in the foothills of the Santa Catalinas, where I have found it more abundant than at any other point visited by me.

A large series collected here very clearly shows the transition from the lead-colored to the fully black-capped phase of plumage. This latter phase of plumage is that of the male birds only, and is assumed for about three months in the year. It begins to be apparent about the middle of February, but the full black cap and tail is attained slowly, the first seen in this condition being taken March 10. During the succeeding three months



this plumage is retained and in July another moult makes all the birds gray or lead-colored again. Though so common a form I was unable to find nests, but have taken young fully fledged during the first week in June.

240. *Myadestes townsendii*. TOWNSEND'S SOLITAIRE.—My notes on this species are from Mineral Creek, in the Pinal Mountains, where it was not uncommon during late October and part of November, 1882. In the Santa Catalinas it was rather a rare species in spring, fall, and winter, and I did not observe it during the warmer portion of the year. I also observed it as a rare species in the pine forests of the Catalinas from November 3 to 8, 1885.

241. *Turdus fuscescens salicicolus*. WILLOW THRUSH. A single specimen (female) was taken by Mr. Herbert Brown at Tucson, early in May, 1882. No others have come under my notice. The specimen is now in my collection (No. 4073).

242. *Turdus aonalaschkæ*. DWARF HERMIT THRUSH.—A common winter resident in the Catalina region, altitude 4500 feet. The earliest record is October 27, and the latest March 14. Mr. Brown has taken it about Tucson in January.

243. *Turdus aonalaschkæ auduboni*. AUDUBON'S HERMIT THRUSH.—Not common. Probably the resident form, although the only specimens taken were obtained in spring, as follows: No. 2022, ♂, March 30, 1885; No. 2234, ♀, April 22, 1885; No. 2350, ♀, April 30, 1886.

[In a series of over 30 specimens of Hermit Thrushes in the Scott Collection only three are referable to var. *auduboni*. The others are all strictly referable to *aonalaschkæ*.—J. A. A.]

244. *Merula migratoria propinqua*. WESTERN ROBIN.—This form of the Robin I found to be a regular fall, winter, and early spring resident in the Catalinas, altitude 3500 to 6000 feet. They arrive here in the fall about November 1, and are soon quite common in small flocks or companies. All through the winter they are more or less common, but towards spring their numbers seem to be very considerably increased, and they are quite common until late in March, and are to be seen sparingly during the first week in April. I have frequently heard the males beginning to sing before they left this point, and on one occasion a single Robin was noted May 5, 1885.

I have observed the species in the pine forests of the Catalinas in November, and on the San Pedro River in January. They are, though regular visitors, much more abundant some seasons than others, and were especially common during the winter of 1885-86.

245. *Sialia mexicana*. WESTERN BLUEBIRD.—A common migrant on the foothills of the mountain ranges, where it is a winter resident. The lowest altitude where I have met them is on the San Pedro River, in January, 1886. They also breed in small numbers in the Catalinas, as I took a young bird of this species on July 4, 1884, altitude 5000 feet. (Also see Auk, Vol. II, No. 4, p. 349, Oct. 1885.) In the same locality the birds appear in flocks about the middle of October and remain until the last of March.

246. *Sialia arctica*. MOUNTAIN BLUEBIRD.—An irregular visitor in fall and winter in the foothills of the Catalinas, which is the only point where I have observed them. In the winter of 1885-86 they were abundant in large flocks, feeding on the seeds of the mistletoe and the hackberry tree. This was the only season when they were present in numbers, and the only other reference in my notes to the species is in the same locality on December 15, 1884, when a flock of fifteen birds were noted, and were all that were seen.

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## A DESCRIPTION OF AN APPARENTLY NEW SPECIES OF *TROCHILUS* FROM CALIFORNIA.

BY J. AMORY JEFFRIES.

*Trochilus violajugulum*, sp. nov.

SP. CHAR. ( ♂ *ad.* Type No. 1616 of my collection). Upperparts metallic green and gold becoming dull on the forehead; gorget violet with a tendency to steel blue at the feather tips; chin and line between gorget and eyes dull; a dull gray belt across breast behind gorget. Sides dull metallic green; flanks less green, the feathers being tipped with brown; ventral median line dullish. Wings dark with an obscure purple glow; an imbricated buff line along the anterior edge of the manus; coverts dull metallic green. Primaries broad to tip, that of the first curved back, graduated in length from first to last. Tail slightly forked; feathers broad, except the last pair, which are abruptly narrow and linear; shafts of the outer pair forming, at the junction of the first and second third, an abrupt angle of  $25^{\circ}$ . Middle feathers and base of second pair metallic green; rest dark with a distinct purple hue. Under tail-coverts white with metallic green central spots.

Length about 3.60; wing, 1.82; tail, 1.18; bill about .75.

*Habitat.* Santa Barbara, Cal.

This specimen was shot April 5, 1883, in a bushy field at the base of the flower belt, well up the foothills. The distal end of the upper mandible was shot away.

The bird is roughly like a *T. anna* without a crown patch or ruff, and with violet for sapphire. The tail is of the same type as in *T. anna*, but smaller, and the angle spoken of is less than  $25^{\circ}$  instead of  $33^{\circ}$ , so that in the closed tail the outer pair of feathers overlap instead of crossing as in *T. anna*. This peculiar